

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086

REMARKS / ARGUMENTS

Claims 1-8 are currently pending in the application.
Claims 1-8 stand rejected. Claims 1, 2 and 7 are amended.
Claim 6 has been cancelled without prejudice or disclaimer.

In the Office Action, claims 2-8 of the present application were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 2 recites the limitation "said annulet indents" in line 2. The Office Action indicates that there is insufficient antecedent basis for this limitation in the claim.

In the Office Action, claims 1-6 of the present invention were rejected under 35 U.S.C. § 102(b) as being anticipated by Wray (reference A: U.S. Patent No. 6,595,098). The Office Action indicates that the reference discloses a structure that is inherently capable of operating and functioning in the manner claimed, comprising an expandable elastomeric disk (item 16) for retaining fluid pressure on one side of said disk, the said disk taking the form as represented by item 16a wherein two opposing protruding curvatures of the said disk are formed about a perpendicular central axis/plane (see Figure 1), the said disk is retained at the periphery by annulet details as shown in Figure 1 for the internal wall structure disk retention feature, it is the Examiner's position that the disk configuration as

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086

depicted in item 16a, discloses first and second points of contact between the disk and the housing item 20 edges as shown in Figure 1, the said first and second points of contacts are by inspection of the Figure 1 detail such that the said first point of contact on the fluid pressure side of the disk from the center-line axis is less than the second point of contact on the non-pressure side of the disk from the center-line axis, and that the connection between item 16 and item 20, constitute dovetail-type retentions. Relating to claims 2-4, the Office Action indicates that the reference discloses indent features for the disk/housing interface that read on the Applicant's indent feature as shown in the Applicant's Figure 5, item 37, relating to claims 5-6, the reference discloses periphery positioning of the said disk and that the said disk is in connection with a pressurized system (item 40). As to limitations which are considered to be inherent in a reference, note the case law In re Ludke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al, 195 USPQ 430, and In re Brown, 173 USPQ 685,688.

The Office Action notes that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art apparatus" if the prior art

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086

teaches all the structural limitations of the claim. In re Masham, 2 USPQ2d 1647.

The Office Action further notes that claims directed to apparatus must be distinguished from prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528,531.

The Office Action further notes that apparatus claims cover what a device is, not what device does. Hewlett-Packard C. v. Bausch & Lomb, Inc., 15 USPQ2d, 1525, 1528. As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon, does not serve to limit an apparatus claim.

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

These rejections and objections are respectfully traversed in view of these amendments and remarks that follow.

As stated above, claims 2-8 of the present application were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In response, claim 2, upon which claims 3-5, 7 and 8 depend has been amended to recite that "a surface of said annulet includes an indent originating from said first point toward a thickness of said annulet." As such, amended claim 2 provides sufficient antecedent basis for the use of the structural term "indent" with the result of the rejection of the

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086

Office Action being resolved. The rejection for amended claim 7 and claims 3-5 and 8, which depend on amended claim 2, are also resolved in regard to the preceding remarks.

As stated above, claims 1-6 of the present application were rejected under 35 U.S.C. § 102(b) as being anticipated by Wray (reference A: U.S. Patent No. 6,595,098). In response, claim 1, upon which claims 2-5 depend, has been amended to recite that "a distance of said first point from a central axis of said elastomeric disk is less than a distance of said second point from the central axis of said elastomeric disk thereby providing a thickness combining said annulet and said first curvature in relation to said central plane greater than a thickness combining said annulet and said second curvature in relation to said central plane such that said thickness at said annulet and said first curvature reduces material strain at said thickness at said annulet and said first curvature during the expansion of said elastomeric disk with the effect of relocating the material strain to said central axis". A feature, detailed by added specificity from structure to function, in the amended claim is that the greater thickness at the first curvature and annulet of the elastomeric disk compensates for bending strain and resultant material strain on the disk caused by expansion. An added feature, shown in detail in FIGS. 6 and 7, is that the lesser thickness of the second curvature and annulet still

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086

allows for adequate holding by a clamp of an ejection system.

In contrast to the elastomeric disk of the present application, the Wray reference discloses a disk 16 which forms one wall of the chamber 22. The disk 16 is clearly a symmetrically contoured shape (See FIG. 1 and Col. 3, lines 1-3). As such, the material strain is still significant where the annulet integrates to both curvatures at two points equidistant from a central axis of the disk. The two points are not necessarily the contact points with the housing 20 (as stated in the Office Action)

Furthermore, it is not an inherent structural change to modify the symmetrically contoured shape of the cited reference to the detailed structural shape of the asymmetrical contoured elastomeric disk of amended claim 1 of the present application. The integration of the dovetailing annulet to the two curvatures of the elastomeric disk at two different points (and not necessarily the points attachable to a support structure) are clearly distinguishable from the disk of the Wray reference. As a result, the elastomeric disk of amended claim 1 of the present application would not be anticipated by the cited reference and the rejection of the Office Action is resolved. The rejection for amended claims 2 and 7 and claims 3-5 and 8, which depend on amended claim 1, are also resolved in regard to the preceding remarks in that the structure of the elastomeric disk is

Application Serial No: 10/627,142
In reply to Office Action of 18 December 2003

Attorney Docket No. 83086


distinguishable from and not anticipated by the disk Wray
reference.

The Examiner is invited to telephone Michael P. Stanley,
Attorney for Applicants, at 401-832-4736 if, in the opinion of
the Examiner, such a telephone call would serve to expedite the
prosecution of the subject patent application.

Respectfully submitted,

WILLIAM P. BARKER ET AL

18 February 2004

By 
MICHAEL P. STANLEY
Attorney of Record
Reg. No. 47108